

REMARKS

Claims 1-21 are currently pending in the subject application. The Examiner has withdrawn claims 1-15 and 18-21 from consideration. Claims 16 and 17 are currently under consideration. Claim 16 stands rejected under 35 U.S.C. §102(e) based on a number of positions laid out in detail in the 10/28/03 Office Action.

Applicant has canceled claims 1-15 and 18-21, has amended claims 16 and 17, and has added claims 22-34. Below we address each of the rejections stated in the Office Action as if it were applied to the newly amended claims.

The deletion of any claims and any other loss of claimed subject matter is being made solely to expedite prosecution of the subject matter now claimed, rather than in acquiescence to any positions taken by the Examiner. In fact, Applicant is *not* acquiescing to any of those positions and is submitting this amendment without prejudice to the subsequent prosecution of claims to some or all of the subject matter which might be lost by virtue of this paper. Applicant explicitly reserves the right to pursue this subject matter in divisional or continuation applications.

Amendments to the Specification

The Specification has been amended to correct typographical errors. Amendments seeking to replace “X and Y” with “Z and Y” (*i.e.*, items 2-4 on pages 2-3 of this paper) find support *inter alia* in Figure 1 (*e.g.*, compounds 2 and 3), Figures 4-6 (*e.g.*, compounds 1 and 2), Figure 7 (*e.g.*, compounds 5 and 7), Figure 8 (*e.g.*, compounds 8-13), Figure 9 (*e.g.*, compounds 14 and 15), and Figure 11, where compounds having $Z = -C(CH_3)_2$ are depicted. As detailed in the section “Amendments to the Claims” below regarding a similar amendment made in claim 17, X is a non-coordinating negative counter ion, and thus cannot be $-C(CH_3)_2$. No new matter is added with these amendments.

Amendments to the Claims

Claim 16 has been amended to address the objection levied by the Examiner with respect to clarity of the claim regarding variables Y, NR, O, S and Se.

Claim 17 has been amended to change “compound” to “chiral detecting reagent”, in accordance with claim 16 from which it depends. In addition, a typographical error has been corrected: “X and Y are $-C(CH_3)_2$ ” should read: “Z and Y are $-C(CH_3)_2$ ”. X is a non-coordinating negative counter ion, and thus cannot be $-C(CH_3)_2$. Support for Z being $-C(CH_3)_2$ can be found *inter alia* in Figure 1 (e.g., compounds 2 and 3), Figures 4-6 (e.g., compounds 1 and 2), Figure 7 (e.g., compounds 5 and 7), Figure 8 (e.g., compounds 8-13), Figure 9 (e.g., compounds 14 and 15), and Figure 11. Furthermore, claim 17, as amended, recites “-N(R')-CH(R_x)-COOH, where R_x comprises an amino acid side chain; and R' is hydrogen, or R' and R_x taken together the nitrogen and carbon atoms to which they are respectively attached form a 5-membered heterocycle.” Support for this amendment can be found, for example, in Figure 11 where chiral detecting reagents comprising a chiral acylating agent having the general structure: -N(R')-CH(R_x)-COOH, where R', taken together with R_x, may form a 5-membered heterocycle are depicted (see, compounds 16 and 21).

New claim 22 finds support, for example, in original claim 17.

Support for new claim 23 can be found, *inter alia*, in Figures 1, 4-9 and 11.

New claim 24 finds support, for example, on page 23 line 12 of the specification.

Support for new claim 25 can be found, *inter alia*, in original claim 16 and Figures 1, 4-9 and 11.

New claim 26 finds support, for example, in original claim 17 and on page 23 lines 15-17 of the specification.

Support for new claim 27 can be found, *inter alia*, in Figures 1, 4-8 and 11.

New claim 28 finds support, for example, in Figures 1, 4-7, 9 and 11.

Support for new claim 29 can be found, *inter alia*, on page 23 line 16 of the specification.

New claim 30 finds support, for example, on page 23 lines 18-19 of the specification and in Figure 11 where chiral detecting reagents comprising a chiral acylating agent having the general structure: -N(R')-CH(R_x)-COOH, where R', taken together with R_x, may form a 5-membered heterocycle are depicted (see, compounds 16 and 21).

Support for new claim 31 can be found, *inter alia*, on page 9 lines 3-7 of the specification, in Figure 12 (e.g., R_x may be alanine or phenylalanine side chain; i.e., R_x may be

• methyl or benzyl), Figure 13 (*e.g.*, compounds **9**, **17**, **18**, **19**, **21**, **22** and **23**; *i.e.*, Rx may be *t*-butyl) and Figure 11 (*e.g.*, Rx may be tert-leucine side chain; *i.e.*, Rx may be , ethyl, *iso*-propyl, *iso*-butyl, *tert*-butyl, benzyl or cyclohexylmethyl).

New claim 32 finds support, for example, in Figures 4-6 and Figure 11 (*e.g.*, compounds **16** and **21**).

Support for new claim 33 can be found, *inter alia*, on page 23 lines 20-23 of the specification.

New claim 34 finds support, for example, on page 23 line 16 of the specification.

No new matter is being introduced with these amendments.

Claim Objections

The Examiner has objected to claim 16 for being unclear because of the confusing use of commas and semicolons in the claims. Applicant has amended claim 16 to remove the lack of clarity and respectfully requests that the objection be withdrawn.

Rejection under 35 U.S.C. § 102(e)

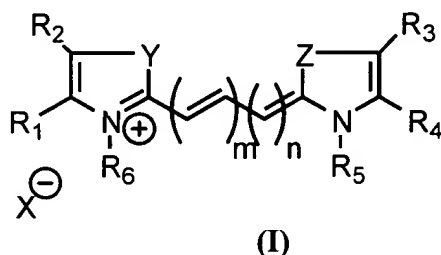
Claim 16 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Waggoner *et al.* (U.S. Patent No.: 6,545,164; herein referred to as “Waggoner”). Specifically, the Examiner states that Waggoner teaches compounds that act as fluorescent labeling reagents and points to the compounds disclosed in columns 9 and 10 as reading on claim 16. The Examiner further alleges that each compound contains a CY3 or CY5 moiety that lends chirality to the structure, and concludes that the instant claims are anticipated.

Applicant strongly disagrees with the Examiner’s conclusion and contends that the Examiner’s analysis is erroneous.

First, Applicant is confused by the Examiner’s assertion that CY3 and CY5 lends chirality to the structures disclosed in Waggoner (*e.g.*, columns 9 and 10). The CY3 and CY5 moieties are *achiral*: they are superimposable on their respective mirror image partner. Applicant is unaware of any publication (including Waggoner) reporting that CY3 or CY5 are

chiral. Clarification is respectfully requested.

Second, Applicant claims chiral detecting reagent comprising the structure (I):



wherein R₁-R₄, X, Y, Z, m and n are as defined in the instant claims; and

where at least one of R₅ and R₆ is a chiral reagent (CR) or a chiral reagent and linker (L-CR).

Columns 9 and 10 in Waggoner disclose species having a core structure of formula (I) wherein R₅ and R₆ are NOT chiral moieties. Specifically, Waggoner's columns 9 and 10 teach compounds where R₅ and R₆ are -(CH₂)₄-SO₃⁻ or -(CH₂)₅-COOH, neither of which is chiral.

A similar analysis can be done for the compounds disclosed in Waggoner's columns 13-16: none of the compounds comprise a chiral reagent at either nitrogen atom of the CY3/5 core (*i.e.*, R₅ or R₆ on Applicant's claimed compounds).

Accordingly, Waggoner cannot anticipate the presently claimed invention. Applicant respectfully requests that the rejection under 35 U.S.C. § 102(e) be withdrawn.

In light of the foregoing Remarks, Applicant respectfully submits that the present case is in condition for allowance. A Notice to that effect is respectfully requested. Applicant thanks the Examiner for careful review and consideration of this case, and if the Examiner believes that a telephone interview would be of assistance in advancing the prosecution of this application, the Examiner is invited to telephone the undersigned (617) 248-5150.

It is believed that no fee is required in connection with the filing of this Amendment.
However, if Applicant is mistaken, the Commissioner is hereby authorized to charge any additional fee(s) deemed necessary to Deposit Account No. 03-1721.

Respectfully submitted,
CHOATE, HALL, & STEWART



Date: January 28, 2004

Nadège M. Lagneau, Ph.D.
Agent for Applicant
Registration. No. 51,908

PATENT GROUP
CHOATE, HALL, & STEWART
Exchange Place
53 State Street
Boston MA 02109
Telephone: 617-248-5150
Facsimile: 617-248-4000